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Technical Note N-602

PIONEER POLAR STRUCTURES

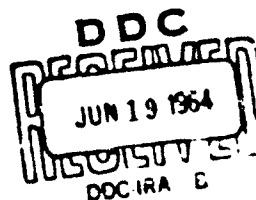
SPECIFICATIONS AND OUTFITTING FOR THE PORTABLE MAINTENANCE SHELTER

BY

G. E. Sherwood

4 June 1964

NO. 110.
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PIONEER POLAR STRUCTURES -

SPECIFICATIONS AND OUTFITTING FOR THE PORTABLE MAINTENANCE SHELTER

Y-P015-11-01-143

Type B

by

G. E. Sherwood

ABSTRACT

A portable maintenance shelter was developed to satisfy the requirement of shelter for maintenance and repair of construction and other equipment in pioneer polar camps. The 20- by 24-foot shelter is a canvas-covered, aluminum arch-rib structure mounted on skids for portability. It includes a travelling hoist, a personnel entry, and an electrical harness. This technical note contains the specifications for the shelter and the outfitting for the equipment-repair wagon presented in the Naval Civil Engineering Laboratory Technical Report R-317, "Pioneer Polar Structures - Portable Maintenance Shelter."

Qualified requesters may obtain copies of this note from DDC

INTRODUCTION

Experience has shown that adequate shelter is essential for efficient maintenance and repair of construction and transportation equipment in per polar camps. Portable shelter is desirable due to the transient nature of many polar work projects and in order that the shelter can be towed to equipment breakdowns in the field. This technical note contains the specifications for the portable maintenance shelter developed to satisfy this requirement and outfitting for the equipment-repair vanigan developed as a companion unit for this shelter.^{1,2} Standard specifications referenced in the text are listed in Appendix A.

SPECIFICATIONS FOR THE SHELTER

The portable maintenance shelter is a canvas-covered, arch-rib structure mounted on skids. The frame is aluminum; the cover is a single thickness of coated nylon. The shelter is 20 by 24 feet and is 10 feet high at the haunch of the arch. Two-foot-wide skids provide tracks for a travelling hoist permitting both longitudinal and lateral positioning. A plywood door panel is provided in the side of the shelter for personnel entry. An electrical harness provides general lighting and outlets.

The portable maintenance shelter is detailed in the drawings presented in Appendix B.

1. Scope. The work shall include the furnishing of all material and equipment and performing all labor for the complete fabrication of the items indicated on the drawings and described and specified herein. The contractor's proposal shall be based on the drawings and specifications herewith and no deviations shall be accepted except as approved in writing by Contracting Officer.

2. Materials. Description of commercial items in parentheses is given to amplify verbal description and set quality standards, and must not be construed as a requirement for specific items.

A. Plywood

(1) For Personnel Entry. Plywood for personnel entry shall conform to Specification NN-P-530a, and shall be grade marked to indicate conformance with the following requirements:

Douglas Fir, Exterior Type, Grade AC, sanded two sides, as per Commercial Standard CS-45 of latest date.

(2) For Shop Floor. Plywood for shop floor shall be 2-4-1 Douglas Fir Plywood, 1-1/8 inches thick, with exterior glue and T&G edges as indicated. All panels shall be stamped with the grade mark of the Douglas Fir Plywood Association.

B. Aluminum

(1) For Structural Purposes. Alloy 6061 or 6062, T-6 Temper, conform to Specification QQ-A-270a. Alloy and use as indicated on the drawings.

(2) Welding Wire. 5154 or 5356 for Alloys 6061 and 6062.

C. Cloth

(1) For Cover. Conform to Specification MIL-C-43006. Gray color. (Herculite No. 80 as manufactured by Herculite Protective Fabrics, Newark 3, New Jersey, conforms to this specification).

D. Fastenings

(1) Nails. The nails shall be steel, cement coated, either standard (coolers) or countersunk head (sinkers) and size as indicated on the drawings, and shall conform to Specification FF-N-105.

(2) Screws

(a) Wood. Wood screws shall be steel, of the size indicated on the drawings and of style 2c (flat countersink) head with cross recess drive) and shall conform to Specification FF-S-111b. Wood screws shall be used only where length requirements are in excess of two (2) inches.

(b) Screws, threaded full length. All screws screwing wood to wood or other materials to wood and where the length requirement is not in excess of two (2) inches shall be a type of screw that is threaded full length. These screws shall be cadmium plated with cross recess drive and head type as indicated on the drawings. Type A, Parker Kalon, cadmium-plated screws with Phillips slot conforms to these requirements.

(3) Bolts, Nuts, Washers.

(a) Bolts and nuts, hexagonal. Conform to Specification FF-B-571a, Type B1 and Table V, and nuts Type A1 and Table XII.

(b) Washers. The washers shall be standard commercial aluminum of the type and size indicated on the drawings.

(4) Harness Snaps. Standard commercial, steel with square eye, 1 inch, and spring guard cadmium or zinc plated, 3 inch \pm 1/8 inch long.

(5) D-Rings. Standard commercial, steel bright finish, heavy pattern, size as indicated.

(6) Cotter Pins. Conform to Specification FF-P-386b, Type B.

(7) Adhesive A - Wood to Wood. The adhesive used for adhering wood to wood (other than the manufacture of plywood) shall conform to Type I, Grade A, Class 1 of Specification MIL-A-397B.

E. Rope

Conform to Specification T-R-605, Type M, Class 1.

F. Straps

(1) Webbing, Cotton. The webbing for straps shall conform to Specification MIL-W-530B and shall be Type III, Class 4 of width indicated on the drawings.

(2) Clips, End. The end clips on webbing straps shall be brass, black chemical finish conforming to Type I, (ball type), of Specification JAN-C-496.

(3) Buckles, Slide, With Hook. The buckles shall be made of steel, hot-rolled sheet or strip, condition optional as indicated on the drawings. The buckle shall be heat treated to a hardness of RC-16-22 and shall be free from cracks, scale, and other injurious defects. Case hardening will not be permitted. The buckle shall be given a finish consisting of a phosphate treated zinc plate, conforming to Class 3, Type III of Specification QQ-Z-325, followed by bake enamelling. The enamel shall conform to Type II, Specification JAN-E-480, in a black color. The coatings shall level out to a

uniform dry film thickness of 0.25 mils minimum without objectionable orange peel, wrinkles, drops, streaks, or areas of thin or no film.

G. Coating

(1) Cadmium Plating. Conform to Specification QQ-P-416a, Class I, Type II.

H. Paint

(1) Primer. The primer shall conform to Specification TT-P-638b.

(2) Enamel. The enamel shall conform to Specification TT-E-529a, Class A. The color shall be No. 24087, Table VI of Standard FED-STD-595.

I. Hardware

(1) Hinges. All hinges shall conform to Specification FF-H-116c, 2-inch Continuous Type 2175F.

(2) Latch and Keeper. Latch and keeper for doors shall be a type easily operated from either inside or outside of the door. Latch and keeper shall be substantially the type indicated on the drawings, easily operated by a person wearing polar-type mittens, but any acceptable latch that meets the necessary requirements may be used upon the approval of the Contracting Officer. (The Vonnegut No. 25 latch, as manufactured by Vonnegut Hardware Co., Indianapolis, Indiana, meets the requirements of this specification.)

J. Electrical

(1) Materials. Materials listed below shall conform to the specifications as noted:

<u>Materials</u>	<u>Specification</u>
(a) <u>Wire connectors</u>	W-S-610
Types I, Class B & A, Style 3 or 4, Type II, Class A.	
(b) <u>Fittings, cable and conduit</u>	W-F-406a

Materials

Specification

Type I, Class 1,
Style A;
Type I, Class 3,
Style A;
Type V, Class 1,
Style A.

Fittings, electric

Metallic tubing,
Type I, Class B, Item 12.

(c) Outlet boxes

W-J-800a

Type I, Size A,
Style 1;
Type I, Size C,
Style 8;
Type II, Size D,
Style 10;
Type II, Size E,
Style 13;
Type II, Size G,
Style 18;
Type IV, Size K,
Style 29;
Type VIII, Size S,
Style 43;
Type VIII, Size S,
Style 44;
Type VIII, Size U,
Style 52; 54; 56; 57; 58;
Type VIII, Size S,
Style 49.

(d) Panelboards

W-P-131a(2)

Class A-1, A-2, and
A-4 as indicated on
drawings and conform
to Table III.

(e) Receptacles and plugs

W-C-596

Style, Series D except
with pressure type
terminals.

<u>Materials</u>	<u>Specification</u>
(f) <u>Conduit, steel,</u> <u>flexible</u>	WW-C-566a
Sizes as indicated.	
(g) <u>Conduit, steel,</u> <u>rigid</u>	WW-C-581c
Sizes as indicated.	
(h) <u>Nipples</u>	WW-N-351a
Type I, sizes as indicated.	

(2) Conductors.

(a) Building conductors. Conductors in buildings shall be copper, of size indicated, color coded; insulation to be of a type to withstand bending at -50 F without damage.

(b) Overhead conductors. Overhead distribution conductors shall be aluminum, of size indicated; insulation to be of a type to withstand bending at -50 F without damage.

(3) Lighting Fixtures. Conform to Specification 97h.

(4) Hardware, Electrical Equipment Mounting.

(a) Spring Clip Mounting Brackets. (Enrico Products, Inc., Cleveland, Ohio, "GAT" No. M-2-4.)

(b) Spring Clip Conduit Hanger. (Enrico Products, Inc., Cleveland, Ohio, "GAT" No. 12-m-2-4.)

(c) Spring Clip Support Bracket With Hook. (Enrico Products, Inc., Cleveland, Ohio, "GAT" No. 2-FMP-28 with 2-CH-16 hook.)

(5) Fixture Hook. 1/2 inch N.P.T. with cable passage. (Crouse Hinds Co., Syracuse, New York, No. UNH16 conforms to this specification.)

(6) Outlet Box Cover, Aligner. (Benjamin Electric Manufacturing Company, Des Plaines, Illinois, No. 3385 conforms to this specification.)

3. Fabrication

A. Shelter

(1) Frame. The aluminum framing shall be fabricated of aluminum alloy and to the dimensions indicated on the drawings. Fabrication shall be in accordance with standard practice. Bolts shall be of the same alloy as structural members. Welding shall be by inert gas process.

(2) Cover. The cover shall be fabricated of coated nylon in accordance with the details. Color shall be gray both sides or white inside and gray outside. Thread shall be Dacron and the stitching shall conform to Federal Standard 751, Type 301. Where reinforcing is indicated, it shall be a double thickness of the cloth in addition to the base cloth. The patch shall be securely stitched to prevent tear-out and all cut edges shall be turned under and stitched. All stitching shall be sealed with clear liquid vinyl.

B. Standard Outfitting

(1) Electrical. The electrical assemblies shall be fabricated in accordance with the details. Each of the items shall be complete and ready for field assembly.

(2) Side Entry. The side entry panel shall be fabricated of Douglas Fir Plywood. It is designed so that the door may swing in or out as desired. Where floor occurs, the door must swing out. All contact surfaces between wood and wood shall be glued with Adhesive A and secured with screws as indicated. After fabrication and before assembly, all surfaces except those in contact, shall receive one (1) coat of Primer and two (2) coats of Enamel.

C. Shop Floor

(1) Floor Panels. The plywood floor panels shall be standard 4 by 8 foot by 1-1/8 inch as indicated on the drawings. No fabrication is required. All surfaces, including edges, of plywood panels shall receive one (1) coat of Primer and two (2) coats of Enamel.

OUTFITTING FOR THE EQUIPMENT-REPAIR WANIGAN

The NCEL standard portable camp wanigan is 8 feet wide by 8 feet high by 20 feet long and is built on a skid system for local movement. Standard accessories for the wanigan include a heating and ventilating system, an electrical harness, and a side-mounted fuel tank. For the equipment-repair wanigan, an additional side-mounted fuel tank is used for gasoline.

The wanigan is described in TR-309, "Family of Wanigans." Specifications for its fabrication are given in TN-596, "Polar Structures - Specifications for the NCEL Wanigans."

<u>Item</u>	<u>Quantity</u>	<u>Source</u>
<u>Fixed Shop Equipment</u>		
Work bench, cabinet-type 72" x 29" x 32"	2	Commercial
Storage bins, eight-compartment 81-1/2" x 30-1/2" x 18-3/4"	2	Federal Stock
Vice, machinist	1	Commercial
Grinder, heavy-duty, pedestal-mounted, electric-driven, with adjustable eye shields; one coarse and one medium wheel, 1/3-hp motor, 110-volt, 60-cycle, single-phase	1	Commercial
Compressor, air, portable, electric drive, single-phase, 3.1 cfm at 150#, 20-gal tank, automatic no-load start, automatic cut-on and cut-off, 1-hp motor, 110-volt, 60-cycle	1	Commercial
Lubricating unit, power-operated	1	Federal Stock

<u>Item</u>	<u>Quantity</u>	<u>Source</u>
Torch outfit, cutting and welding, oxygen gauge, acetylene gauge, 50-ft dual hose, cutting tips #101-0-1-2-3, welding tips - 0-1-2-3-4-5-6-7-8-9, cutting goggles, fling lighter	1	Commercial
Truck, hand, two-wheeled, for welding cylinders	1	Federal Stock
Tool chest, mechanic, seven-drawer	1	Commercial
Tool chest, heavy-duty, seven-drawer	1	Commercial
Cabinet, tool, four-drawer, with casters	1	Commercial
Cart, tool, two-shelf, four-drawer, with casters, 24" x 18" x 34"	1	Commercial

Portable Shop Equipment

Grease gun, hand, lever-operated	1	Federal Stock
Gun, fluid, direct-delivery	1	Federal Stock
Oil can, hand, forced-feed	1	Federal Stock
Clamps, "C",		
2" x 1-3/4" throat	1	Federal Stock
4" x 2-1/4" throat	1	Federal Stock
6" x 2-3/4" throat	1	Federal Stock
Wrench, impact, electric	1	Commercial
Jack, hydraulic, 10-ton	1	Commercial
Jack, hydraulic, 5-ton	2	Commercial
Bar, pinch, 5'	1	Federal Stock
Bar, wrecking, 18"	1	Federal Stock

<u>Item</u>	<u>Quantity</u>	<u>Source</u>
Caliper, inside, spring-joint, 6"	1	Federal Stock
Caliper, outside, spring-joint, 6"	1	Federal Stock
Compressor, piston ring	1	Federal Stock
Dividers, mechanic, steel	1	Federal Stock
Stone, sharpening, mounted	1	Federal Stock
Tool kit, carpenter, w/chest	1	Commercial
Blow torch, gasoline, 1-pt cap	1	Federal Stock
Carrier, storage battery	1	Federal Stock
Tachometer, mechanical, continuous	1	Federal Stock
Hammer, hand, sledge, double-faced, 8-lb	1	Federal Stock
Drill, electric, portable, 3/4" hand-style 6, w/stand	1	Federal Stock
Tool kit, diesel injector repair	1	Federal Stock
Brazing alloy, silver, 6-oz	1	Federal Stock
Flux, brazing, silver, 8-oz	1	Federal Stock
Cleaner set, welding and cutting tips	1	Federal Stock
Cutter, pipe, 2" to 3/8"	1	Federal Stock
Threading set, pipe, RHT	1	Federal Stock
Wrench, pipe, 6"	1	Federal Stock
Wrench, pipe, 8"	1	Federal Stock

<u>Item</u>	<u>Quantity</u>	<u>Source</u>
Wrench, pipe, 10"	2	Federal Stock
Wrench, pipe, 14"	2	Federal Stock
Shears, metal-cutting, LH, 10"	1	Federal Stock
Shears, metal-cutting, RH, 10"	1	Federal Stock
Shears, metal-cutting, straight, 10"	1	Federal Stock
Fuller kit, mechanical, w/case	1	Federal Stock
Face shield for grinder, 8" visor	1	Commercial
Dresser, abrasive wheel, hand	1	Federal Stock
Cutter, bolt, 1/2" capacity	1	Federal Stock
Cutter, tube, 1/8" to 1-1/8" OD w/deburring tool	1	Federal Stock
Blowgun, airline	1	Commercial
Engine cylinder compression gauge	1	Commercial

Hand Tools

Hammer, hand. sledge, double-faced, 4-lb	1	Federal Stock
Drill, electric, portable, 1/4", hand-style	1	Federal Stock
Drill, electric, portable, 1/2", hand-style 6, w/stand	1	Federal Stock
Brush, wire, carbon-cleaning, for 1/4" drill	2	Federal Stock
Arbor, hole saw, #1	1	Federal Stock
Arbor, hole saw, #2	1	Federal Stock

<u>Item</u>	<u>Quantity</u>	<u>Source</u>
Arbor, hole saw, #3	1	Federal Stock
Blade, hole saw, 5/8"	1	Federal Stock
Blade, hole saw, 3/4"	1	Federal Stock
Blade, hole saw, 7/8"	1	Federal Stock
Blade, hole saw, 1"	1	Federal Stock
Blade, hole saw, 1-1/16"	1	Federal Stock
Blade, hole saw, 1-1/8"	1	Federal Stock
Blade, hole saw, 1-1/4"	1	Federal Stock
Blade, hole saw, 1-3/8"	1	Federal Stock
Blade, hole saw, 1-1/2"	1	Federal Stock
Blade, hole saw, 1-5/8"	1	Federal Stock
Blade, hole saw, 1-3/4"	1	Federal Stock
Blade, hole saw, 1-7/8"	1	Federal Stock
Blade, hole saw, 2"	1	Federal Stock
Threading set, screw, RHT, N.F. 1/4" to 1"	1	Federal Stock
Threading set, screw, RHT, N.C. 3-48 to 12-24	1	Federal Stock
Square, combination, grooved- type, 12"	1	Federal Stock
Caliper set, micrometer, outside 0-3"	1	Federal Stock
Restorer set, thread	1	Federal Stock
Chaser set, thread, internal 4-24 thd/inch	1	Federal Stock

<u>Item</u>	<u>Quantity</u>	<u>Source</u>
Soldering gun, electric	1	Federal Stock
Tip, electric soldering gun (box)	1	Federal Stock
Soldering iron, electric, 5/8", pyramid-point	1	Federal Stock
Soldering iron, electric, pencil-type	1	Federal Stock
Wrench, torque, 1/2" drive, 5-75 ft-lb	1	Federal Stock
Wrench, torque, 1/2" drive, 5-250 ft-lb	1	Federal Stock
Battery booster cable	1	Commercial
Timing light with spare bulb	1	Commercial
Extractor set, screw	1	Federal Stock

<u>Item</u>	<u>Quantity</u>		<u>Source</u>
	<u>Heavy Duty</u>	<u>Standard</u>	
	<u>Tool Box</u>	<u>Tool Box</u>	
Socket wrench set, 1/4" sq drive, consisting of:			
Handle, spinner		1	Federal Stock
Socket, regular 8-point, 1/4"		1	Federal Stock
Socket, regular 8-point, 5/16"		1	Federal Stock
Socket, regular 8-point, 3/8"		1	Federal Stock
Socket, regular 6-point, 3/16"		1	Federal Stock
Socket, regular 6-point, 7/32"		1	Federal Stock
Socket, regular 6-point, 1/4"		1	Federal Stock
Socket, regular 6-point, 9/32"		1	Federal Stock
Socket, regular 6-point, 5/16"		1	Federal Stock
Socket, regular 6-point, 11/32"		1	Federal Stock
Socket, regular 6-point, 3/8"		1	Federal Stock
Socket, regular 6-point, 7/16"		1	Federal Stock
Socket, regular 6-point, 1/2"		1	Federal Stock
Adapter, 1/4" female drive to 3/8" male drive		1	Federal Stock
Socket wrench set, 3/8" sq drive, consisting of:			
Handle, ratchet	1	1	Federal Stock
Handle, speeder	1	1	Federal Stock
Handle, sliding tee	1	1	Federal Stock

<u>Item</u>	<u>Quantity</u>		<u>Source</u>
	<u>Heavy Duty Tool Box</u>	<u>Standard Tool Box</u>	
Handle, nut spinner	1	1	Federal Stock
Handle, plastic	1	1	Federal Stock
Handle, flexible extension	1	1	Commercial
Ratchet, spinner	1	1	Commercial
Ratchet, adapter	1	1	Federal Stock
Extension bar, 1-1/2"	1	1	Federal Stock
Extension bar, 6"	1	1	Federal Stock
Extension bar, 12"	1	1	Federal Stock
Universal joint	1	1	Federal Stock
Adapter, 3/8" female drive to 1/4" male drive		1	Federal Stock
Adapter, 3/8" female drive to 1/2" male drive		1	Federal Stock
Socket wrench set, 3/8" sq drive, consisting of:			
Socket, regular 8-point, 1/4"	1	1	Federal Stock
Socket, regular 8-point, 5/16"	1	1	Federal Stock
Socket, regular 8-point, 3/8"	1	1	Federal Stock
Socket, regular 8-point, 7/16"	1	1	Federal Stock
Socket, regular 8-point, 1/2"	1	1	Commercial
Socket, regular 6-point, 1/4"	1	1	Commercial
Socket, regular 6-point, 5/16"	1	1	Commercial

<u>Item</u>	<u>Quantity</u>		<u>Source</u>
	<u>Heavy Duty Tool Box</u>	<u>Standard Tool Box</u>	
Socket, regular 12-point, 3/8"	1	1	Federal Stock
Socket, regular 12-point, 7/16"	1	1	Federal Stock
Socket, regular 12-point, 1/2"	1	1	Federal Stock
Socket, regular 12-point, 9/16"	1	1	Federal Stock
Socket, regular 12-point, 19/32"	1	1	Federal Stock
Socket, regular 12-point, 5/8"	1	1	Federal Stock
Socket, regular 12-point, 11/16"	1	1	Federal Stock
Socket, regular 12-point, 3/4"	1	1	Federal Stock
Socket, regular 12-point, 13/16"	1	1	Federal Stock
Socket, regular 12-point, 7/8"	1	1	Federal Stock
Socket, deep, 12-point, 3/8"	1	1	Federal Stock
Socket, deep, 12-point, 7/16"	1	1	Federal Stock
Socket, deep, 12-point, 1/2"	1	1	Federal Stock
Socket, deep, 12-point, 9/16"	1	1	Federal Stock
Socket, deep, 12-point, 19/32"	1	1	Federal Stock
Socket, deep, 12-point, 5/8"	1	1	Federal Stock
Socket, deep, 12-point 11/16"	1	1	Federal Stock
Socket, deep, 12-point, 3/4"	1	1	Federal Stock
Socket, deep, 12-point, 13/16"	1	1	Federal Stock
Socket, deep, 12-point, 7/8"	1	1	Federal Stock
Socket, deep, 12-point, 15/16"	1	1	Federal Stock

<u>Item</u>	<u>Quantity</u>		<u>Source</u>
	<u>Heavy Duty</u>	<u>Standard</u>	
	<u>Tool Box</u>	<u>Tool Box</u>	
Socket, deep, 12-point, 1"	1	1	Federal Stock
Socket, flexible, regular 6-point, 3/8"	1	1	Federal Stock
Socket, flexible, regular 6-point, 7/16"	1	1	Federal Stock
Socket, flexible, regular 6-point, 1/2"	1	1	Federal Stock
Socket, flexible, regular 6-point, 5/8"	1	1	Federal Stock
Socket, flexible, regular 6-point, 11/16"	1	1	Federal Stock
Socket, flexible, regular 6-point, 3/4"	1	1	Federal Stock
Socket, flexible, regular 6-point, 7/8"	1	1	Federal Stock
Socket wrench set, 1/2" sq drive, consisting of:			
Handle, flex, 18"	1	1	Commercial
Handle, sliding tee	1	1	Federal Stock
Handle, speeder, 19"	1	1	Federal Stock
Handle, ratchet, 10"	1	1	Federal Stock
Handle, ratchet, 15"	1	1	Federal Stock
Ratchet, spinner	1		Commercial
Ratchet, adapter	1	1	Federal Stock
Universal joint	1	1	Federal Stock

<u>Item</u>	<u>Quantity</u>		<u>Source</u>
	<u>Heavy Duty</u> <u>Tool Box</u>	<u>Standard</u> <u>Tool Box</u>	
Bar, extension, 2"	1	1	Federal Stock
Bar, extension, 3-1/2"	1	1	Federal Stock
Bar, extension, 5"	1	1	Federal Stock
Bar, extension, 10"	1	1	Federal Stock
Drag link adjuster	1		Federal Stock
Stud remover	1		Commercial
Adapter, 1/2" female drive to 3/8" male drive		1	Federal Stock
Adapter, 1/2" female drive to 3/4" male drive		1	Federal Stock
Socket, regular, 8-point, 3/8"	1	1	Federal Stock
Socket, regular, 8-point, 7/16"	1	1	Federal Stock
Socket, regular, 8-point, 1/2"	1	1	Federal Stock
Socket, regular, 8-point, 9/16"	1	1	Federal Stock
Socket, regular, 8-point, 5/8"	1		Federal Stock
Socket, regular, 8-point, 11/16"	1		Federal Stock
Socket, regular, 8-point, 3/4"	1		Federal Stock
Socket, regular, 8-point, 13/16"	1		Federal Stock
Socket, regular, 8-point, 7/8"	1		Federal Stock
Socket, regular, 8-point, 15/16"	1		Federal Stock
Socket, regular, 8-point, 1"	1		Federal Stock
Socket, regular, 6-point, 7/16"	1		Commercial

<u>Item</u>	<u>Quantity</u>		<u>Source</u>
	<u>Heavy Duty</u>	<u>Standard</u>	
	<u>Tool Box</u>	<u>Tool Box</u>	
Socket, regular, 6-point, 1/2"	1		Commercial
Socket, regular, 6-point, 9/16"	1		Commercial
Socket, regular, 6-point, 5/8"	1		Commercial
Socket, regular, 6-point, 11/16"	1		Commercial
Socket, regular, 6-point, 3/4"	1		Commercial
Socket, regular, 6-point, 13/16"	1		Commercial
Socket, regular, 6-point, 7/8"	1		Commercial
Socket, regular, 6-point, 15/16"	1		Commercial
Socket, regular, 6-point, 1"	1		Commercial
Socket, regular, 6-point, 1-1/16"	1		Commercial
Socket, regular, 12-point, 3/8"	1	1	Federal Stock
Socket, regular, 12-point, 7/16"	1	1	Federal Stock
Socket, regular, 12-point, 1/2"	1	1	Federal Stock
Socket, regular, 12-point, 9/16"	1	1	Federal Stock
Socket, regular, 12-point, 19/32"	1	1	Federal Stock
Socket, regular, 12-point, 5/8"	1	1	Federal Stock
Socket, regular, 12-point, 11/16"	1	1	Federal Stock
Socket, regular, 12-point, 3/4"	1	1	Federal Stock
Socket, regular, 12-point, 25/32"	1	1	Federal Stock
Socket, regular, 12-point, 13/16"	1	1	Federal Stock
Socket, regular, 12-point, 7/8"	1	1	Federal Stock
Socket, regular, 12-point, 29/32"	1	1	Federal Stock

<u>Item</u>	<u>Quantit/</u>		<u>Source</u>
	<u>Heavy Duty</u> <u>Tool Box</u>	<u>Standard</u> <u>Tool Box</u>	
Socket, regular, 12-point, 15/16"	1	1	Federal Stock
Socket, regular, 12-point, 1"	1	1	Federal Stock
Socket, regular, 12-point, 1-1/16"	1	1	Federal Stock
Socket, regular, 12-point, 1-1/8"	1	1	Federal Stock
Socket, regular, 12-point, 1-3/16"	1	1	Federal Stock
Socket, regular, 12-point, 1-1/4"	1	1	Federal Stock
Socket, regular, 12-point, 1-5/16"	1		Commercial
Socket, deep, 6-point, 1/2"	1		Commercial
Socket, deep, 6-point, 9/16"	1		Commercial
Socket, deep, 6-point, 5/8"	1		Commercial
Socket, deep, 6-point, 11/16"	1		Commercial
Socket, deep, 6-point, 3/4"	1		Commercial
Socket, deep, 6-point, 13/16"	1		Commercial
Socket, deep, 6-point, 7/8"	1		Commercial
Socket, deep, 6-point, 1"	1		Commercial
Socket, deep, 12-point, 1/2"	1		Commercial
Socket, deep, 12-point, 9/16"	1		Commercial
Socket, deep, 12-point, 5/8"	1		Commercial
Socket, deep, 12-point, 11/16"	1		Commercial
Socket, deep, 12-point, 3/4"	1		Commercial
Socket, deep, 12-point, 13/16"	1		Federal Stock

<u>Item</u>	<u>Quantity</u>		<u>Source</u>
	<u>Heavy Duty</u>	<u>Standard</u>	
	<u>Tool Box</u>	<u>Tool Box</u>	
Socket, deep, 12-point, 7/8"	1		Federal Stock
Socket, deep, 12-point, 15/16"	1		Federal Stock
Socket, deep, 12-point, 1"	1		Federal Stock
Socket, deep, 12-point, 1-1/16"	1		Federal Stock
Socket, deep, 12-point, 1-1/8"	1		Federal Stock
Socket, flexible, 6-point, 9/16"	1		Commercial
Socket, flexible, 6-point, 5/8"	1		Commercial
Socket, flexible, 6-point, 11/16"	1		Commercial
Socket, flexible, 6-point, 3/4"	1		Commercial
Socket, flexible, 6-point, 13/16"	1		Commercial
Socket, flexible, 6-point, 7/8"	1		Commercial
Socket wrench set, 3/4" sq drive, consisting of:			
Handle, ratchet	1		Federal Stock
Handle, flex	1		Federal Stock
Sliding tee head	1		Federal Stock
Ratchet, adapter	1		Federal Stock
Bar, extension, 3"	1		Federal Stock
Bar, extension, 6"	1		Federal Stock
Bar, extension, 16"	1		Federal Stock
Adapter, 3/4" female drive to 1/2" male drive	1		Federal Stock

<u>Item</u>	<u>Quantity</u>		<u>Source</u>
	<u>Heavy Duty</u>	<u>Standard</u>	
	<u>Tool Box</u>	<u>Tool Box</u>	
Socket, regular, 12-point, 15/16"	1		Federal Stock
Socket, regular, 12-point, 31/32"	1		Federal Stock
Socket, regular, 12-point, 1"	1		Federal Stock
Socket, regular, 12-point, 1-1/16"	1		Federal Stock
Socket, regular, 12-point, 1-1/8"	1		Federal Stock
Socket, regular, 12-point, 1-3/16"	1		Federal Stock
Socket, regular, 12-point, 1-1/4"	1		Federal Stock
Socket, regular, 12-point, 1-5/16"	1		Federal Stock
Socket, regular, 12-point, 1-3/8"	1		Federal Stock
Socket, regular, 12-point, 1-7/16"	1		Federal Stock
Socket, regular, 12-point, 1-1/2"	1		Federal Stock
Socket, regular, 12-point, 1-9/16"	1		Federal Stock
Socket, regular, 12-point, 1-5/8"	1		Federal Stock
Socket, regular, 12-point, 1-11/16"	1		Federal Stock
Socket, regular, 12-point, 1-3/4"	1		Federal Stock
Socket, regular, 12-point, 1-13/16"	1		Federal Stock
Socket, regular, 12-point, 1-7/8"	1		Federal Stock
Socket, regular, 12-point, 2"	1		Federal Stock
Wrench, box, double offset, long, 12-point, 3/8" & 7/16"	1	1	Federal Stock
Wrench, box, double offset, long, 12-point, 7/16" & 1/2"	1		Federal Stock

<u>Item</u>	<u>Quantity</u>		<u>Source</u>
	<u>Heavy Duty</u> <u>Tool Box</u>	<u>Standard</u> <u>Tool Box</u>	
Wrench, box, double offset, long, 12-point, 1/2" & 9/16"	1	1	Federal Stock
Wrench, box, double offset, long, 12-point, 9/16" & 5/8"	1		Federal Stock
Wrench, box, double offset, long, 12-point, 19/32" & 11/16"	1	1	Federal Stock
Wrench, box, double offset, long, 12-point, 5/8" & 11/16"	1		Federal Stock
Wrench, box, double offset, long, 12-point, 5/8" & 3/4"	1	1	Federal Stock
Wrench, box, double offset, long, 12-point, 11/16" & 13/16"	1		Federal Stock
Wrench, box, double offset, long, 12-point, 3/4" & 7/8"	1	1	Federal Stock
Wrench, box, double offset, long, 12-point, 25/32" & 13/16"	1	1	Federal Stock
Wrench, box, double offset, long, 12-point, 7/8" & 15/16"	1	1	Federal Stock
Wrench, box, double offset, long, 12-point, 15/16" & 1"	1		Federal Stock
Wrench, box, double offset, long, 12-point, 1" & 1-1/8"	1	1	Federal Stock
Wrench, box, double offset, long, 12-point, 1-1/16" & 1-1/8"	1		Federal Stock
Wrench, box, double offset, long, 12-point, 1-1/16" & 1-1/2"	1	1	Federal Stock
Wrench, box, double offset, long, 12-point, 1-3/16" & 1-5/16"	1		Federal Stock

<u>Item</u>	<u>Quantity</u>		<u>Source</u>
	<u>Heavy Duty</u>	<u>Standard</u>	
	<u>Tool Box</u>	<u>Tool Box</u>	
Wrench, box, double offset, long 12-point, 1-1/4" & 1-3/8"	1		Federal Stock
Wrench, box, double offset, long, 12-point, 1-3/8" & 1-1/2"	1		Federal Stock
Wrench, box, double offset, long, 12-point, 1-7/16" & 1-3/8"	1		Federal Stock
Wrench, box, double offset, short, 12-point, 5/16" & 3/8"	1		Federal Stock
Wrench, box, double offset, short, 12-point, 3/8" & 7/16"	1		Federal Stock
Wrench, box, double offset, short, 12-point, 7/16" & 1/2"	1		Federal Stock
Wrench, box, double offset, short, 12-point, 1/2" & 9/16"	1		Federal Stock
Wrench, box, double offset, short, 12-point, 9/16" & 5/8"	1		Federal Stock
Wrench, box, double offset, short, 12-point, 5/8" & 3/4"	1		Federal Stock
Wrench, box, double offset, short, 12-point, 11/16" & 13/16"	1		Federal Stock
Wrench, box and open end combina- tion, long handle, 12-point, 3/8"	1	1	Federal Stock
Wrench, box and open end combina- tion, long handle, 12-point, 7/16"	1	1	Federal Stock
Wrench, box and open end combina- tion, long handle, 12-point, 1/2"	1	1	Federal Stock
Wrench, box and open end combina- tion, long handle, 12-point, 9/16"	1	1	Federal Stock

<u>Item</u>	<u>Quantity</u>		<u>Source</u>
	<u>Heavy Duty</u>	<u>Standard</u>	
	<u>Tool Box</u>	<u>Tool Box</u>	
Wrench, box and open end combination, long handle, 12-point, 5/8"	1	1	Federal Stock
Wrench, box and open end combination, long handle, 12-point, 11/16"	1	1	Federal Stock
Wrench, box and open end combination, long handle, 12-point, 3/4"	1	1	Federal Stock
Wrench, box and open end combination, long handle, 12-point, 13/16"	1	1	Federal Stock
Wrench, box and open end combination, long handle, 12-point, 7/8"	1	1	Federal Stock
Wrench, box and open end combination, long handle, 12-point, 15/16"	1	1	Federal Stock
Wrench, box and open end combination, long handle, 12-point, 1"	1	1	Federal Stock
Wrench, open-end, double offset, short handle, 11/64" & 15/64"		1	Federal Stock
Wrench, open-end, double offset, short handle, 15/64" & 13/64"		1	Federal Stock
Wrench, open-end, double offset, short handle, 7/32" & 1/4"		1	Federal Stock
Wrench, open-end, double offset, short handle, 9/32" & 5/16"		1	Federal Stock
Wrench, open-end, double offset, short handle, 15/16" & 9/32"		1	Federal Stock
Wrench, open-end, double offset, short handle, 11/32" & 3/8"		1	Federal Stock
Wrench, open-end, double offset, short handle, 3/8" & 11/32"		1	Federal Stock

<u>Item</u>	<u>Quantity</u>		<u>Source</u>
	<u>Heavy Duty</u>	<u>Standard</u>	
	<u>Tool Box</u>	<u>Tool Box</u>	
Wrench, open-end, double offset, long handle, 1/4" & 5/16"	1	1	Federal Stock
Wrench, open-end, double offset, long handle, 5/16" & 3/8"	1	1	Federal Stock
Wrench, open-end, double offset, long handle, 3/8" & 7/16"	1	1	Federal Stock
Wrench, open-end, double offset, long handle, 7/16" & 1/2"	1	1	Federal Stock
Wrench, open-end, double offset, long handle, 1/2" & 9/16"	1	1	Federal Stock
Wrench, open-end, double offset, long handle, 9/16" & 5/8"	1	1	Federal Stock
Wrench, open-end, double offset, long handle, 19/32" & 11/16"	1	1	Federal Stock
Wrench, open-end, double offset, long handle, 5/8" & 11/16"	1	1	Federal Stock
Wrench, open-end, double offset, long handle, 5/8" & 3/4"	1	1	Federal Stock
Wrench, open-end, double offset, long handle, 11/16" & 3/4"	1	1	Federal Stock
Wrench, open-end, double offset, long handle, 3/4" & 7/8"	1	1	Federal Stock
Wrench, open-end, double offset, long handle, 25/32" & 13/16"	1	1	Federal Stock
Wrench, open-end, double offset, long handle, 7/8" & 15/16"	1	1	Federal Stock
Wrench, open-end, double offset, long handle, 15/16" & 1"	1	1	Federal Stock

<u>Item</u>	<u>Quantity</u>		<u>Source</u>
	<u>Heavy Duty</u>	<u>Standard</u>	
	<u>Tool Box</u>	<u>Tool Box</u>	
Wrench, open-end, double offset, long handle, 1" & 1-1/8"	1		Federal Stock
Wrench, open-end, double offset, long handle, 1" & 1-1/16"	1		Federal Stock
Wrench, open-end, double offset, long handle, 1-1/16" & 1-1/4"	1	1	Federal Stock
Wrench, open-end, double offset, long handle, 1-3/16" & 1-5/16"	1		Federal Stock
Wrench, open-end, double offset, long handle, 1-1/16" & 1-3/8"	1		Federal Stock
Wrench, open-end, double offset, long handle, 1-3/8" & 1-1/2"	1		Federal Stock
Wrench, open-end, double offset, long handle, 1-7/16" & 1-5/8"	1		Federal Stock
Wrench, open-end, adjustable, 4"	1	1	Federal Stock
Wrench, open-end, adjustable, 6"	1	1	Federal Stock
Wrench, open-end, adjustable, 8"	1	1	Federal Stock
Wrench, open-end, adjustable, 10"	1	1	Federal Stock
Wrench, open-end, adjustable, 12"	1	1	Federal Stock
Wrench, open-end, adjustable, 15"	1		Federal Stock
Pliers, battery terminal, 7"	1	1	Federal Stock
Pliers, combination, utility, 8"	1		Federal Stock
Pliers, diagonal cutting, short nose	1		Federal Stock
Pliers, diagonal cutting, 4"	1	1	Federal Stock

<u>Item</u>	<u>Quantity</u>		<u>Source</u>
	<u>Heavy Duty</u> <u>Tool Box</u>	<u>Standard</u> <u>Tool Box</u>	
Pliers, diagonal cutting, 6"	1	1	Federal Stock
Pliers, gas, 6"	1	1	Federal Stock
Pliers, ignition		1	Federal Stock
Pliers, gripping, 7-1/2"		1	Federal Stock
Pliers, long, round nose, 6"	1	1	Federal Stock
Pliers, needle nose, with side cutter		1	Federal Stock
Pliers, slip joint, angle nose, 5"	1	1	Federal Stock
Pliers, slip joint, angle nose, 8"	1	1	Federal Stock
Pliers, slip joint, angle nose, 10"	1		Federal Stock
Pliers, vice grip, 7"	1	1	Federal Stock
Pliers, vice grip, 10"	1		Federal Stock
Screwdrivers, flat tip, plastic handle, 1/8" x 3"	1	1	Federal Stock
Screwdriver, flat tip, plastic handle, 1/4" x 1-1/2"	1	1	Federal Stock
Screwdriver, flat tip, plastic handle, 3/16" x 2-1/2"	1	1	Federal Stock
Screwdriver, flat tip, plastic handle, 1/4" x 4"	1	1	Federal Stock
Screwdriver, flat tip, plastic handle, 5/16" x 6"	1	1	Federal Stock
Screwdriver, flat tip, plastic handle, 3/8" x 8"	1	1	Federal Stock
Screwdriver, flat tip, plastic handle, 7/16" x 8"	1	1	Federal Stock

<u>Item</u>	<u>Quantity</u>		<u>Source</u>
	<u>Heavy Duty</u>	<u>Standard</u>	
	<u>Tool Box</u>	<u>Tool Box</u>	
Screwdriver, Phillips-head, plastic handle, #1 - 3/16" x 1"	1	1	Federal Stock
Screwdriver, Phillips-head, plastic handle, #2 - 1/4" x 1-1/2"	1	1	Federal Stock
Screwdriver, Phillips-head, plastic handle, #1 - 3/16" x 3"	1	1	Federal Stock
Screwdriver, Phillips-head, plastic handle, #2 - 1/4" x 4"	1	1	Federal Stock
Screwdriver, Phillips-head, plastic handle, #3 - 5/16" x 6"	1	1	Federal Stock
Screwdriver, Phillips-head, plastic handle, #4 - 3/8" x 8"	1	1	Federal Stock
Screwdriver, offset, Phillips-head, #1 & 2	1	1	Federal Stock
Screwdriver, offset, Phillips-head, #2 & 3	1	1	Federal Stock
Screwdriver, offset, Phillips-head, #3 & 4	1	1	Federal Stock
Screwdriver, spark tester, flat blade, 5-1/8"	1	1	Federal Stock
Hammer, hand, ball peen, 4-oz	1	1	Federal Stock
Hammer, hand, ball peen, 12-oz	1	1	Federal Stock
Hammer, hand, ball peen, 32-oz	1		Federal Stock
Hammer, hand, plastic head	1	1	Federal Stock
Punch, drive pin, straight type, 1/16"		1	Federal Stock
Punch, drive pin, straight type, 3/32"		1	Federal Stock

<u>Item</u>	<u>Quantity</u>		<u>Source</u>
	<u>Heavy Duty</u>	<u>Standard</u>	
	<u>Tool Box</u>	<u>Tool Box</u>	
Punch, drive pin, straight type, 1/8"		1	Federal Stock
Punch, drive pin, straight type, 5/32"	1	1	Federal Stock
Punch, drive pin, straight type, 3/16"	1	1	Federal Stock
Punch, drive pin, straight type, 7/32"	1	1	Federal Stock
Punch, drive pin, straight type, 1/4"	1	1	Federal Stock
Punch, drive pin, straight type, 5/16"	1	1	Federal Stock
Punch, drive pin, straight type, 3/8"	1	1	Federal Stock
Punch, drive pin, tapered, 1/16"		1	Federal Stock
Punch, drive pin, tapered, 1/8"		1	Federal Stock
Punch, drive pin, tapered, 3/16"	1	1	Federal Stock
Punch, drive pin, tapered, 1/4"	1	1	Federal Stock
Punch, drive pin, tapered, 5/16"	1	1	Federal Stock
Punch, center, solid, 1/8" x 4"	1	1	Federal Stock
File, hand, flat, 6"	1	1	Federal Stock
File, hand, flat, 8"	1	1	Federal Stock
File, hand, flat, 10"	1	1	Federal Stock
File, hand, flat, 12"	1	1	Federal Stock
File, hand, round, 6"	1	1	Federal Stock

<u>Item</u>	<u>Quantity</u>		<u>Source</u>
	<u>Heavy Duty</u> <u>Tool Box</u>	<u>Standard</u> <u>Tool Box</u>	
File, hand, round, 8"	1	1	Federal Stock
File, hand, round, 10"	1	1	Federal Stock
File, hand, round, 12"	1	1	Federal Stock
Handles, file, wood, 1" x 4"	1	1	Federal Stock
Handles, file, wood, 1-1/4" x 4-1/2"	1	1	Federal Stock
Key, socket head screw, hex drive, .050"		1	Federal Stock
Key, socket head screw, hex drive, 1/16"		1	Federal Stock
Key, socket head screw hex drive, 5/64"		1	Federal Stock
Key, socket head screw, hex drive, 3/32"	1	1	Federal Stock
Key, socket head screw, hex drive, 1/8"	1	1	Federal Stock
Key, socket head screw, hex drive, 5/32"	1	1	Federal Stock
Key, socket head screw, hex drive, 3/16"	1	1	Federal Stock
Key, socket head screw, hex drive, 7/32"	1	1	Federal Stock
Key, socket head screw, hex drive, 1/4"	1	1	Federal Stock
Key, socket head screw, hex drive, 5/16"	1	1	Federal Stock
Key, socket head screw, hex drive, 3/8"	1	1	Federal Stock

<u>Item</u>	<u>Quantity</u>		<u>Source</u>
	<u>Heavy Duty</u> <u>Tool Box</u>	<u>Standard</u> <u>Tool Box</u>	
Key, socket head screw, hex drive, 1/2"	1	1	Federal Stock
Key, socket head screw, hex drive, 9/16"	1	1	Federal Stock
Key, socket head screw, hex drive, 5/8"	1	1	Federal Stock
Bar, pinch, 1/2" x 13-1/2"	1	1	Federal Stock
Bar, pinch, 3/4" x 24"	1		Federal Stock
Bar, pry, 17/32" x 16"	1	1	Federal Stock
Frame, hand hacksaw	1	1	Federal Stock
Blades, hand hacksaw, 18 teeth/in	12	12	Federal Stock
Blades, hand hacksaw, 24 teeth/in	12	12	Federal Stock
Blades, hand hacksaw, 32 teeth/in	12	12	Federal Stock
Scraper, carbon, flexible, 1" x 9"	1	1	Federal Stock
Knife, putty, 1-1/4" blade		1	Federal Stock
Knife, putty, 2" blade	1		Federal Stock
Pick-up tool, magnetic, large		1	Federal Stock
Pick-up tool, magnetic, pocket		1	Commercial
Wrench, open-end, fixed, (tappet) 7/16" x 1/2"		2	Federal Stock
Wrench, open-end, fixed, (tappet) 1/2" x 9/16"		2	Federal Stock
Wrench, open-end, fixed, (tappet) 5/8" x 11/16"		2	Federal Stock
Tape, measuring, 8'	1	1	Federal Stock

<u>Item</u>	<u>Quantity</u>		<u>Source</u>
	<u>Heavy Duty</u>	<u>Standard</u>	
	<u>Tool Box</u>	<u>Tool Box</u>	
Rule, steel, machinist, 6" long, 1/32" one side, 1/10" other side		1	Federal Stock
Gage, thickness, English system, 25-blade	1	1	Federal Stock
Gage, thickness, English system, 13-blade		1	Federal Stock
Gage, gap-setting, set of 8, angular wire	1	1	Federal Stock
Tool kit, automotive, electrical, ignition		1	Federal Stock
Tool kit, diesel injector repair	1		Federal Stock
Chisel, cold, hand, 1/4"		1	Federal Stock
Chisel, cold, hand, 5/16"		1	Federal Stock
Chisel, cold, hand, 3/8"		1	Federal Stock
Chisel, cold, hand, 7/16"	1	1	Federal Stock
Chisel, cold, hand, 1/2"	1	1	Federal Stock
Chisel, cold, hand, 5/8"	1	1	Federal Stock
Chisel, cold, hand, 3/4"	1	1	Federal Stock
Chisel, cold, hand, 7/8"	1		Federal Stock

REFERENCES

1. U. S. Naval Civil Engineering Laboratory. Technical Report R-317: Pioneer polar structures - Portable maintenance shelter, by G. E. Sherwood. Port Hueneme, Calif. To be published.
2. U. S. Naval Civil Engineering Laboratory. Technical Note N-587: Pioneer polar structures - Erection of the portable maintenance shelter, by R. W. Hansen and G. E. Sherwood. Port Hueneme, Calif. 26 May 1964.

Appendix A

STANDARD SPECIFICATIONS

The standard specifications given in the following list or mentioned in the text shall govern in all cases where references to standard specifications are made. In case of difference between these standard specifications and this specification or its accompanying drawings, this specification or its accompanying drawings shall govern. Especial care shall be exercised to refer in requests for quotations, in orders, and in subcontracts to the standard specifications and to all modifications thereof.

Military

MIL-A-397B	Feb. 3, 1953	Adhesive, room-temperature and intermediate-temperature setting resin (phenol, resorcinol, and melamine base)
MIL-C-43006	Jan. 27, 1961	Cloth, laminated, vinyl-nylon, high-strength flexible
MIL-W-530B	Mar. 24, 1959	Webbing, textile, cotton, general purpose, natural or in colors

Joint Army-Navy

JAN-C-496(1)	Mar. 11, 1952	Clips, end
JAN-E-480	July 24, 1957	Enamel, baking phenol- or urea-formaldehyde

NAVDOKS

9Th	Sept. 1956	Electrical apparatus, distributing systems, and wiring
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Federal

T-R-605	Oct. 31, 1956	Rope, manila and sisal
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W-C-596	Aug. 13, 1959	Connector, plug, electrical; connector, receptacle, electrical; plate, wall, electrical
W-F-406a	June 9, 1960	Fittings for electrical cable and flexible metal conduit
W-J-800a	Apr. 2, 1958	Junction box; extension, junction box; cover, junction box, (steel, cadmium or zinc-coated)
W-P-131a(2)	Apr. 13, 1951	Panelboards; equipped with automatic circuit-breakers
W-S-610	Apr. 2, 1950	Splice, conductor
FF-B-571a	Jan. 9, 1934	Bolts, nuts, studs, and top rivets (and material for same)
FF-H-116c	July 3, 1957	Hinges, hardware, builder's
FF-N-105	Oct. 6, 1952	Nails, wire; and staples
FF-P-386b	Mar. 21, 1951	Pins, cotter (split)
FF-S-111b	May 15, 1961	Screws, wood
NN-P-530a	Nov. 2, 1961	Plywood; flat panel
QQ-A-270a	Nov. 6, 1957	Aluminum alloy, bars, rods and shapes; extruded; 6061 and 6062
QQ-P-416a	Dec. 11, 1956	Plating, cadmium (electro- deposited)
TT-E-529a	Oct. 30, 1959	Enamel, alkyd, semi-gloss
TT-P-636b	Feb. 23, 1954	Primer coating, synthetic, wood and ferrous metal
WW-C-566a	Sept. 2, 1954	Conduit, steel, flexible
WW-C-581c(2)	Oct. 28, 1958	Conduit, electrical, steel, rigid, zinc-coated

WW-N-351a Mar. 13, 1956 Nipples, pipe, threaded

Federal Standards

FED-STD-595 Mar. 1, 1956 Colors

FED-STD-751 Aug. 14, 1959 Stitches, seams and stitchings

Non-Government

All of the following specifications shall be of latest date unless indicated otherwise:

American Society for Testing Materials

Douglas Fir Plywood Association

Commercial Standard CS-45

Appendix B

DRAWINGS FOR THE PORTABLE MAINTENANCE SHELTER

The original of the drawings listed below and shown at reduced scale are available at the Naval Civil Engineering Laboratory, Port Hueneas, California. All drawings are 28 by 40 inches.

<u>Y&D Drawing No.</u>	<u>Title</u>
936918	Portable shop structure aluminum fabrication
936948	Portable shop structure floor - bracing - electrical
936949	Portable shop structure cover details
936920	Portable shop structure erection
936951	28- by 44-foot maintenance structure floor - side entry - electrical